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ABSTRACT

Semiotics, the study of signs, is a relatively new and highly controversial area. Symbols, icons, and indexes represent the three types of signs. Semantics, pragmatics, and syntactics represent the three basic semiotic areas, with pragmatics having a growing influence in oral language and reading. A comprehensive view of curriculum is implicit in semiotics insofar as all existing school subjects--and even subjects not yet formulated--are ways of organizing signs. The range of semiotics and its potential for organizing thinking about curriculum in new ways can add structure and substance to arguments for the things that teachers value: (1) oral language; (2) the written word; (3) the arts; (4) interdisciplinary study; and (5) the articulate exchange of ideas and feelings among students. A bibliography of 13 items is included. (JW)

ERIC Clearinghouse on Reading and Communication Skills

FACT SHEET

Semiotics

Semiotics, a relatively new and highly controversial area, has been praised as the most comprehensive of fields and condemned as an imperialistic discipline. Its literature is so wide-ranging and complex that even Umberto Eco, a major theorist, acknowledges that semiotics is a field "in a state of disorder." The central concerns of semiotics can be defined, though, and some of its implications for teaching can be outlined.

What Is Semiotics?

Semiotics is the study of *signs*. A sign is something that stands for something else. There are three kinds of signs:

1. symbols—signs that bear an *arbitrary relationship* to that which they stand for. (E.g., the word "apple" by convention stands for the fruit we identify with the word.)
2. icons—signs *resembling* that which they stand for. (E.g., a painting of an apple looks like the fruit it represents.)
3. indexes—signs that are *indicators* of a fact or condition. (E.g., a chest pain can indicate heartburn; smoke usually indicates fire.)

Additionally, signs can be organized into *systems of objects and behaviors*. The arts and the academic disciplines are highly complex, interrelated sign systems—formulations and configurations of symbols and/or icons. The way you set your table is part of a system of cultural signs, as is your choice of clothes, wallet photos, and bumper stickers. *Ideas* are signs too, since they stand for entities as defined in one's culture. Your idea of snow, for instance, is determined by the repertoire of words, categories, pictures, and other interpretants provided by your culture.

There are three basic areas of semiotics—semantics, pragmatics, and syntactics. *Semantics* deals with the *meanings of signs and sign systems;* that is, meanings of words, sentences, gestures, paintings, mathematical symbols, etc. Stated another way, semantics attempts to specify the cultural definitions of all kinds of signs and sign combinations. *Pragmatics* deals with *inferential meaning*—the subtler aspects of communication expressed through indirection ("It's drafty in here" = "Close the door") and through social contexts (as when a threat is understood as mere horseplay among boasting friends). *Syntactics* deals with the *structure* of signs and sign systems (such as the structure of a sentence, novel, film, fugue, or ceremony). Linguistic syntactics (phonology, morphology, and syntax) is best known by teachers, but semiotics is concerned with the "syntax" of nonlinguistic sign systems as well.

The above definitions, adapted from Eco, Charles Morris, Charles Sanders Peirce, and others, are necessarily oversimplifications. Yet they provide some sense of the vast range of semiotics, pointing to the field's relationships to communication, anthropology, psychology, and various traditional school subjects.

Has Semiotics Influenced Teaching?

In oral language and reading, pragmatics has had a growing influence. Literary theorists, psycholinguists, and even computer specialists—for example, Iser, Smith, Schank—are finding common ground in the notion that reading is not mere message transmission but a joint venture in which the reader cooperates with the author in a meaning-making process. Schema theory (see ERIC Fact Sheet, "Schemata") holds that a reader's repertoire of experiences—characterized as *schemata,* or stored conceptual structures—will directly determine the qualities of meaning that he or she derives from a text. This is not merely a theoretical observation. The way a teacher views a wide range of language behaviors, from students' miscues in oral reading to their discussions of literature, will be profoundly affected by the teacher's appreciation of pragmatic aspects of communication. Reading researchers, moreover, are asking a variety of pragmatic questions about reading: When students read simplified texts, do they suffer from the lack of connectives that reveal relationships in more complex texts? How, and at what ages, do children develop schemata for reading different kinds of stories predictively? What kinds of metaphorical expression can be processed by children at different age levels?

What Are the General Implications of Semiotics for Teaching?

A comprehensive view of curriculum is implicit in semiotics insofar as all existing school subjects—and even subjects not yet formulated—are by their nature ways of organizing signs. If we think of learners as individuals with the potential for expressing themselves through a variety of signs (such as linguistic, gestural, pictorial, musical, and mathematical signs) and systems of signs, we gain a fresh perspective both on human potential and on the organization of school subjects.

A constellation of cognitive, aesthetic, and psychomotor skills is brought to the surface when we consider students' abilities to understand and perform in numerous sign systems.

The role of language in the curriculum, moreover, takes on new power in the semiotic perspective. Language is the main arbiter as students learn to use and understand all of the other symbol systems. Language is used by musicians and visual artists in articulating their intentions and describing their techniques. Analysis of the syntax of any nonlinguistic object, from an equation to a piece of sculpture, involves language. So does description of the ideas or emotional responses that the object evokes in us.

The centrality of language in semiotics can be disputed on theoretical grounds, but as Eco says, "Language is the most powerful semiotic device that man has invented." Piaget states that "language is but one among . . . many aspects of the semiotic function, even though it is in most instances the most important." John Carroll acknowledges the educational importance of pictorial forms but notes that they "are almost always accompanied by language and often require language to make them intelligible." Language across the curriculum, then, is not a mere buzzphrase; it is an essential condition for learning.

Suhor has called semiotics an overarching conception that provides a stronger basis for interdisciplinary studies than, say, traditional rationales like the humanities and aesthetic education, or more recent ones like media study and global education. Consistent with studies in right/left brain functions, a semiotics-based curriculum encourages students to talk about the paintings and music they produce, to create collages expressing the themes of novels and plays, to write about the things they see under microscopes and in physics laboratories, or to engage in a variety of purposeful cross-media activities. As Wolfe and Reising note, these mindstretching activities "shift repeatedly between two different kinds of brain functioning . . . [and] engage both brains in a balanced way."

The richness of skills required in a semiotics-based curriculum is evident. Saloman, among others, has written about the range of mental skills required in multimedia reception and production. A well-articulated semiotics-based program would necessarily be the opposite of the unstructured "frills" approach criticized by the back to basics advocates. The very range of semiotics and its potential for organizing our thinking about curriculum in new ways can add structure and substance to arguments for the things that teachers value: oral language, the written word, the arts, interdisciplinary study, and the articulate exchange of ideas and feelings among students.

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